



BLUE ROCK
ENVIRONMENTAL, INC.

FILE COPY

Mr. Robert Stone
Hazardous Materials Specialist
Humboldt County Health Department
Division of Environmental Health
100 H Street, Suite 100
Eureka, California 95501

April 5, 2005

**Re: First Quarter 2005 Groundwater Monitoring Report
Former Cash Oil Fortuna
409 South Fortuna Boulevard, Fortuna, CA
HCDEH LOP No. 12652
Blue Rock Project No. NC-004**

Dear Mr. Stone,

This report presents the results of the first quarter 2005 groundwater monitoring activities at 409 South Fortuna Boulevard, Fortuna, Humboldt County, California (site) (Figure 1), and was prepared for Clyde Harvey by Blue Rock Environmental, Inc. (Blue Rock).

Background

Site Description

The former Cash Oil Service Station is located on the corner of South Fortuna Boulevard and Newburg Road in Fortuna, California. The site is located in an area of low topographic relief and is considered part of the Eel River flood plain (Figure 1). The site formerly contained one single-story building with four pump islands that were used to dispense unleaded gasoline from four fiberglass lined, single walled steel 10,000-gallon underground storage tanks (UST), three in Complex #1 and one in Complex #2 (Figure 2).

Site History

On May 8, 1997, as part of a UST system upgrade, Clearwater Group (Clearwater) observed Tank Liners Inc. drill three soil borings B-1, B-2, and B-3 for collection of soil and groundwater samples as required by the HCDEH (Figure 2). Laboratory analytical results from the soil and groundwater samples indicated that an unauthorized release of petroleum had occurred from the UST system.

In May 2000, Cash Oil Company sold the property and upgraded UST system to Golden Gate Petroleum of Martinez, California.

In August 2004, Beacom Construction (Beacom) of Fortuna, California, on behalf of Golden Gate Petroleum, removed the (4) 10,000-gallon USTs and associated fuel dispensers from the site. The site is being redeveloped as a commercial property.

Site Investigation and Corrective Action History

On March 14, 2000, Clearwater supervised the installation of eight onsite soil borings (B-4 through B-11) to define the extent of petroleum hydrocarbon impact to soil and groundwater. Groundwater had been impacted by gasoline compounds primarily in the vicinity of the north pump islands with concentrations of benzene ranging to 36 micrograms per liter ($\mu\text{g}/\text{L}$) and ethylbenzene ranging to 41 $\mu\text{g}/\text{L}$. Concentrations of methyl tertiary butyl ether (MTBE) ranging up to 3,900 $\mu\text{g}/\text{L}$ were present in the vicinity of the north pump islands and the north property line.

During January 2001, Clearwater supervised construction of four groundwater monitoring wells (MW-1 through MW-4) and one soil boring (B-12) to define and monitor the extent of soil and groundwater contamination in soil and groundwater. Results of the January 2001 investigation indicated that site soils in the vicinity of the northwestern dispenser island was acting as a continuing source for groundwater contamination and that the offsite extent of groundwater contamination had not been defined in northeasterly or westerly directions. Clearwater prepared a *Subsurface Investigation and First Quarterly Monitoring Report* dated February 23, 2001 describing the January 2001 investigation. The February 2001 report included recommendations for additional investigation to define the offsite extent of contamination northeast and west of the site.

At the request of the HCDEH, Clearwater submitted a *Workplan for Subsurface Investigation and Site Conceptual Model*, dated June 14, 2001. The *Workplan* recommended installation of monitoring wells to the north and northeast of the UST complex. The *Site Conceptual Model* presented extent of contamination, potential for contaminant migration, sensitive receptor results, and recommended the installation of a groundwater extraction trench for interim remedial action. The HCDEH responded to the reports in a letter dated August 24, 2001, with the request of an *Addendum* for additional plume delineation to the west of the fuel dispensers and southeast of UST Complex #2.

On August 28, 2001, Clearwater submitted a *Workplan Addendum* to the HCDEH that included installation of additional monitoring wells for plume delineation west and southeast. The *Addendum* also recommended postponing interim remedial action until the dissolved-phase contaminant plume is completely delineated. The *Workplan Addendum* was approved by the HCDEH in a letter dated October 12, 2001.

On March 2, 2002, Clearwater supervised the installation of three additional monitoring wells associated with the subject property: MW-5, MW-6, and MW-7 (Figure 2). These monitoring wells were placed downgradient in onsite and offsite locations to further assess the sorbed and dissolved-phase hydrocarbon contamination associated with the site. The extent of sorbed-phase

hydrocarbon contamination was defined in all directions. The extent of dissolved-phase hydrocarbon contamination was defined in all directions for the purpose of developing a corrective action plan, but requires additional delineation of MTBE south of MW-7. Results of this investigation are presented in Clearwater's *Additional Assessment and First Quarter 2002 Groundwater Monitoring Report*, dated April 5, 2002.

On June 11, 2002, Clearwater supervised the installation of one additional monitoring well associated with the subject property: MW-8 (Figure 2). This monitoring well was placed southeast of MW-7 to further assess the dissolved-phase hydrocarbon contamination associated with the site. Results of this investigation are presented in Clearwater's *Additional Assessment and Second Quarter 2002 Groundwater Monitoring Report*, dated August 5, 2002.

Clearwater submitted a *Corrective Action Plan (CAP)*, dated January 31, 2003, to the HCDEH. The *CAP* presented a summary of the hydrogeology and contamination. The report evaluated remedial alternatives and concluded that a combination of source soil removal, groundwater extraction from open excavation and enhanced bioremediation using oxygen releasing compounds (ORC) would be the best remedial alternative for the site. A natural attenuation feasibility study was presented in the *CAP*. Preparation of a *CAP* was requested by the HCDEH in a letter dated August 13, 2002. The *CAP* was approved by the HCDEH in a correspondence letter dated February 27, 2003.

Clearwater submitted a *Remedial Action Plan*, April 18, 2003 to the HCDEH for review. The RAP evaluates results from natural attenuation pilot testing and details the future excavation of contaminated soil, excavation dewatering activities and the use of enhanced bioremediation (ORC). These remedial activities were based on working in conjunction with future site renovation activities.

Clearwater submitted a *Report of Waste Discharge (ROWD)*, dated May 27, 2003 to the North Coast Region Water Quality Control Board (NCRWQCB) for review. The *ROWD* details the subsurface placement of oxygen releasing compounds (ORC) and complies with waste discharge requirements. The NCRWQCB concurred with Clearwater's *ROWD* in a letter dated January 5, 2004.

In August of 2004, Blue Rock supervised Van Meter Construction of Redway, California excavate 2,034 tons of petroleum contaminated soil from the vicinity of the former UST fuel system. The remedial soil excavation removed approximately 2,109 pounds (346 gallons) of hydrocarbons from the site. Blue Rock mixed approximately 750 pounds of ORC into the excavation backfill. Monitoring well MW-3 was destroyed during remedial excavation activities. Remedial activities are presented in Blue Rock's *Remedial Report of Findings*, dated September 1, 2004. The HCDEH concurred with Blue Rock's recommendations in a letter dated September 2, 2004.

Field and Laboratory Activities

Groundwater Monitoring Activities

On March 25, 2005, seven wells (MW-1, MW-2, MW-4 through MW-8) were monitored. Monitoring well MW-16 from the Fortuna Beacon site was also gauged for groundwater gradient data.

Prior to sampling, an electronic water level indicator was used to gauge depth to water in each well, accurate to within ± 0.01 -foot. All wells were checked for the presence of light non-aqueous phase liquid (LNAPL) petroleum prior to purging. No measurable thicknesses of LNAPL were observed on groundwater in any of the wells.

In preparation for sampling, the wells were purged of groundwater until sampling parameters (temperature, pH, and conductivity) stabilized. Dissolved oxygen measurements were collected to monitor the effectiveness of the dissolved-phase hydrocarbon cleanup.

Following recovery of water levels to at least 80% of their static levels in the other wells, groundwater samples were collected from the wells using disposable polyethylene bailers and transferred to laboratory supplied containers. Sample containers were labeled, documented on a chain-of-custody form, and placed on ice in a cooler for transport to the project laboratory.

Purging instruments were cleaned between use by an Alconox® wash followed by double rinse in clean tap water to prevent cross-contamination. Purge and rinseate water was stored on-site in labeled 55-gallon drums pending future removal and disposal.

Groundwater monitoring and well purging information is presented on Gauge Data/Purge Calculations and Purge Data sheets (attached).

Groundwater Sample Analyses

Groundwater samples were analyzed by Kiff Analytical (Kiff), a DHS-certified laboratory, located in Davis, California, for the following analytes:

- TPHg, BTEX, and MTBE by EPA Method 5030/8260B.

Groundwater Monitoring Results

Groundwater Flow Direction and Gradient

Static groundwater in the wells was present beneath the site at depths ranging from approximately 3.24 (MW-7) to 11.26 (MW-8) feet bgs. Gauging data, combined with well elevation data, were used to calculate groundwater elevation, and to generate a groundwater

elevation and gradient map. The groundwater flow direction was primarily calculated to be toward the northwest at a gradient of 0.22 ft/ft, with localized mounding around MW-5 and MW-7 (Figure 3). The groundwater gradient and flow direction are consistent with previous measurements.

Groundwater Contaminant Analytical Results

LNAPL:	None
TPHg concentration:	<50 µg/L (MW-2, MW-4, MW-5, MW-6, MW-8) to 7,400 µg/L (MW-1)
Benzene concentration:	<0.50 µg/L (MW-2, MW-4, MW-5, MW-6, MW-8) to 4.8 µg/L (MW-1)
MTBE Concentration:	<0.50 µg/L (MW-2, MW-5, MW-6) to 240 µg/L (MW-1)
Dissolved Oxygen:	0.65 milligrams per liter (mg/L) (MW-1), 5.78 mg/L (MW-2), 2.13 mg/L (MW-8)

Groundwater sample analytical results are shown graphically on Figures 4a, 4b, and 4c. Cumulative groundwater sample analytical results are summarized in Table 1, and intrinsic bioremediation data are summarized in Table 2. Copies of the laboratory report and chain-of-custody form are attached.

Remarks

Groundwater sample analytical results fall within historical concentration range for the site.

Project Status

- The site is currently being monitored on a quarterly basis per the HCDEH directives. The next quarterly sampling event is scheduled for June 2005. Groundwater samples will be analyzed for TPHg, BTEX, and MTBE.
- In August 2004, 750 pounds of ORC® were placed in the subsurface below the site and the site is currently being monitoring for dissolved oxygen levels and dissolved-phase hydrocarbon cleanup progress.

Certification

This report was prepared under the supervision of a California Professional Geologist at Blue Rock. All statements, conclusions, and recommendations are based upon published results from past consultants, field observations by Blue Rock, and analyses performed by a state-certified laboratory as they relate to the time, location, and depth of points sampled by Blue Rock. Interpretation of data, including spatial distribution and temporal trends, are based on commonly used geologic and scientific principles. It is possible that interpretations, conclusions, and recommendations presented in this report may change, as additional data become available and/or regulations change.

Information and interpretation presented herein are for the sole use of the client and regulating agency. The information and interpretation contained in this document should not be relied upon by a third party.

The service performed by Blue Rock has been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area of the site. No other warranty, expressed or implied, is made.

If you have any questions regarding this project, please contact us at (707) 441-1934.

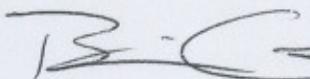
Sincerely,
Blue Rock Environmental, Inc.

Prepared by:

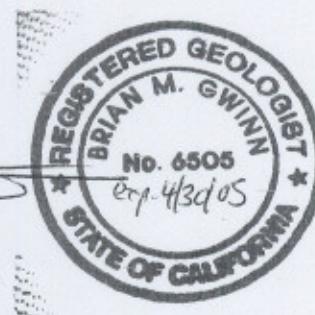


Scott Ferriman
Project Scientist

Reviewed by:



Brian Gwinn, PG
Principal Geologist



Attachments:

- Table 1: Groundwater Elevations and Analytical Data
- Table 2: Intrinsic Bioremediation Data
- Table 3: Well Construction Details
- Figure 1: Site location Map
- Figure 2: Site Plan
- Figure 3: Groundwater Elevations and Gradient Map – March 25, 2005
- Figure 4a: Dissolved-Phase TPHg Distribution Map – March 25, 2005
- Figure 4b: Dissolved-Phase Benzene Distribution Map – March 25, 2005
- Figure 4c: Dissolved-Phase MTBE Distribution Map – March 25, 2005
- Blue Rock Gauge/Purge Calculations and Well Purging Data field sheets
- Laboratory Analytical Report and Chain-of-Custody Form

Distribution:

Mr. Clyde Harvey, 1785 Fort Douglas Circle, Salt Lake City, UT 84103

Mr. Dennis O'Keefe, Golden Gate Petroleum, 501 Shell Avenue, Martinez, CA 94553

Table 1
GROUNDWATER ELEVATIONS AND ANALYTICAL DATA
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California
Blue Rock Project No. NC-004

Sample ID	Sample Date	TOC (feet)	DTW (feet)	SPH (feet)	GWE (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Methanol (µg/L)	Ethanol (µg/L)
GW-3 (B-3)	5/8/99	--	--	0.00	--	23,000	63	110	600	1,630	<130	--	--	--	--	--	--
B-4	3/14/00	--	--	0.00	--	210	4.1	<0.5	<0.5	0.79	<0.5	<10	<1	<1	<1	--	--
B-5	3/14/00	--	--	0.00	--	<50	<0.5	<0.5	<0.5	<1	0.79	<10	<1	<1	<1	--	--
B-6	3/14/00	--	--	0.00	--	110	<0.5	<0.5	<0.5	<1	<0.5	<10	<1	<1	<1	--	--
B-7	3/14/00	--	--	0.00	--	<50	<0.5	<0.5	<0.5	<1	<0.5	<10	<1	<1	<1	--	--
B-8	3/14/00	--	--	0.00	--	19,000	18	2.4	20	3.8	1,100	<100	<5	12	91	--	--
B-9	3/14/00	--	--	0.00	--	20,000	36	22	11	<8	3,900	<200	<10	<10	310	--	--
B-10	3/14/00	--	--	0.00	--	<63	<0.5	<0.5	<0.5	<1	<0.5	<13	<1	<1	<1	--	--
B-11	3/14/00	--	--	0.00	--	14,000	26	2.6	41	5	580	<100	<5	<5	12	--	--
MW-1	1/19/01	99.75	11.37	0.00	88.38	4,900	5	1.1	14	2.3	200	29	<1	5.4	6.1	<100	<10
	5/4/01	99.75	11.29	0.00	88.46	4,500	12	<2	7.8	<2	620	31	<2	<2	24	<500	<20
	8/16/01	99.75	15.40	0.00	84.35	7,700	13	1.7	23	2.6	280	16	<0.5	2.4	13	<50	<5
	11/1/01	99.75	15.74	0.00	84.01	3,100	10	0.85	9.8	1.4	220	22	<0.5	2.5	9.4	<1,500	<5
	3/6/02	58.74	12.32	0.00	46.42	7,700	28	<2.5	14	<2.5	980	39	<2.5	3.9	49	--	--
	6/20/02	58.74	13.59	0.00	45.15	3,400	33	<2.5	13	<2.5	1,100	40	<2.5	3	48	--	--
	9/3/02	58.74	15.61	0.00	43.13	1,500	6.2	<2.5	<2.5	<2.5	1,200	38	<2.5	2.9	40	--	--
	12/11/02	58.74	16.31	0.00	42.43	4,200	14	<2	9.8	<2	870	25	<2	2.4	27	--	--
	3/7/03	58.74	12.37	0.00	46.37	8,100	19	<2.5	15	3.9	1,300	39	<2.5	<2.5	52	--	--
	6/3/03	58.74	11.96	0.00	46.78	6,800	19	<2.5	12	<2.5	1,200	37	<2.5	3	54	--	--
	9/2/03	58.74	15.21	0.00	43.53	5,900	12	<1.5	13	1.7	800	27	<1.5	2.2	31	--	--
	12/3/03	58.74	15.07	0.00	43.67	6,100	6.8	1.5	15	2.5	730	29	<1	2.9	37	--	--
	3/9/04	58.74	11.42	0.00	47.32	5,500	11	<2	12	<2	940	37	<2	2.1	45	--	--
	6/8/04	58.74	13.38	0.00	45.36	7,000	11	<5	14	<10	780	<50	<5	<5	43	--	--
	9/3/04	58.74	15.79	0.00	42.95	810	6.8	<1	3.7	<1	400	--	--	--	--	--	--
	12/8/04	58.74	12.79	0.00	45.95	3,700	4.7	1.5	20	1.9	270	--	--	--	--	--	--
	3/25/05	58.74	10.79	0.00	47.95	7,400	4.8	1.4	21	1.4	240	--	--	--	--	--	--
MW-2	1/19/01	99.24	12.41	0.00	86.83	<50	<0.5	<0.5	<0.5	<0.5	2.4	<5	<0.5	<0.5	<0.5	<50	<5
	5/4/01	99.24	11.07	0.00	88.17	<50	<0.5	<0.5	<0.5	<0.5	11	<5	<0.5	<0.5	<0.5	<50	<5
	8/16/01	99.24	14.24	0.00	85.00	<50	<0.5	<0.5	<0.5	<0.5	14	<5	<0.5	<0.5	<0.5	<50	<5
	11/1/01	99.24	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/02	58.18	10.74	0.00	47.44	<50	<0.5	<0.5	<0.5	<0.5	1.2	<5	<0.5	<0.5	<0.5	--	--
	6/20/02	58.18	12.70	0.00	45.48	<50	<0.5	<0.5	<0.5	<0.5	2.3	<5	<0.5	<0.5	<0.5	--	--
	9/3/02	58.18	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/11/02	58.18	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/7/03	58.18	10.04	0.00	48.14	<50	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	--	--
	6/3/03	58.18	10.06	0.00	48.12	<50	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	--	--
	9/2/03	58.18	14.01	0.00	44.17	<50	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	--	--
	12/3/03	58.18	13.13	0.00	45.05	<50	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	--	--
	3/9/04	58.18	9.07	0.00	49.11	<50	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	--	--
	6/8/04	58.18	12.14	0.00	46.04	<50	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	--

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Sample ID	Sample Date	TOC (feet)	DTW (feet)	SPH (feet)	GWE (feet)	TPHg ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethylbenzene ($\mu\text{g/L}$)	Xylenes ($\mu\text{g/L}$)	MTBE ($\mu\text{g/L}$)	TBA ($\mu\text{g/L}$)	DIPE ($\mu\text{g/L}$)	ETBE ($\mu\text{g/L}$)	TAME ($\mu\text{g/L}$)	Methanol ($\mu\text{g/L}$)	Ethanol ($\mu\text{g/L}$)
MW-2	9/3/04	58.18	14.55	0.00	43.63	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	12/8/04	58.18	8.51	0.00	49.67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	3/25/05	58.18	8.63	0.00	49.55	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
MW-3	1/19/01	99.77	9.88	0.00	89.89	<2,000	<20	<20	<20	<20	15,000	560	<20	<20	490	<2,000	<200
	5/4/01	99.77	4.96	0.00	94.81	4,800	630	<20	72	130	7,700	570	<20	<20	200	<2,000	<200
	8/16/01	99.77	15.64	0.00	84.13	1,300	14	0.98	1.6	1.1	6,800	320	<0.5	6	240	<150	<5
	11/1/01	99.77	15.98	0.00	83.79	<2,000	<20	<20	<20	<20	6,600	460	<20	<20	270	<35,000	<200
	3/6/02	58.72	13.06	0.00	45.66	<2,000	<20	21	<20	<20	6,600	240	<20	<20	160	--	--
	6/20/02	58.72	11.70	0.00	47.02	1,900	57	<5	<5	<5	2,900	90	<5	<5	140	--	--
	9/3/02	58.72	15.53	0.00	43.19	<1,000	<10	<10	<10	<10	3,300	130	<10	<10	110	--	--
	12/11/02	58.72	16.48	0.00	42.24	<1,000	<10	<10	<10	<10	3,600	110	<10	<10	110	--	--
	3/7/03	58.72	4.18	0.00	54.54	3,300	150	5.4	7.1	18	2,300	77	<5	<5	110	--	--
	6/3/03	58.72	4.40	0.00	54.32	3,000	100	4.4	4.2	12	1,900	56	<2.5	<2.5	96	--	--
	9/2/03	58.72	14.69	0.00	44.03	<500	<5	<5	<5	<5	2,300	68	<5	<5	80	--	--
	12/3/03	58.72	14.79	0.00	43.93	1,600	89	<5	<5	8.1	2,300	78	<5	<5	120	--	--
	3/9/04	58.72	7.90	0.00	50.82	1,500	23	<3	<3	4.9	1,400	62	<3	<3	68	--	--
	6/8/04	58.72	11.28	0.00	47.44	<5,000	<50	<50	<50	<100	1,800	<500	<50	<50	89	--	--
	8/13/04	Removed during remedial soil excavation activities															
MW-4	1/19/01	99.12	12.17	0.00	86.95	150	<1	<1	<1	<1	680	210	<1	<1	11	<100	<10
	5/4/01	99.12	10.71	0.00	88.41	<200	<2	<2	<2	<2	440	120	<2	<2	16	<200	<20
	8/16/01	99.12	14.83	0.00	84.29	<50	<0.5	<0.5	<0.5	<0.5	250	<5	<0.5	<0.5	10	<50	<5
	11/1/01	99.12	14.76	0.00	84.36	61	<0.5	<0.5	<0.5	<0.5	210	18	<0.5	<0.5	8.5	<50	<5
	3/6/02	58.07	10.28	0.00	47.79	220	<0.5	<0.5	<0.5	<0.5	130	40	<0.5	<0.5	5.4	--	--
	6/20/02	58.07	12.41	0.00	45.66	<50	<0.5	<0.5	<0.5	<0.5	440	32	<0.5	<0.5	20	--	--
	9/3/02	58.07	14.34	0.00	43.73	<250	<2.5	<2.5	<2.5	<2.5	1,300	35	<2.5	<2.5	34	--	--
	12/11/02	58.07	15.23	0.00	42.84	<500	<5	<5	<5	<5	2,300	<50	<5	<5	54	--	--
	3/7/03	58.07	10.48	0.00	47.59	330	<1	<1	<1	<1	570	33	<1	<1	28	--	--
	6/3/03	58.07	10.12	0.00	47.95	130	<0.5	<0.5	<0.5	<0.5	380	19	<0.5	<0.5	23	--	--
	9/2/03	58.07	13.82	0.00	44.25	85	<0.5	<0.5	<0.5	<0.5	390	12	<0.5	<0.5	17	--	--
	12/3/03	58.07	13.91	0.00	44.16	220	<0.5	<0.5	<0.5	<0.5	510	31	<0.5	<0.5	22	--	--
	3/9/04	58.07	9.51	0.00	48.56	<500	<5	<5	<5	<5	2,000	220	<5	<5	5.6	--	--
	6/8/04	58.07	12.03	0.00	46.04	210	<0.5	<0.5	<0.5	<1	420	25	<0.5	<0.5	1.5	--	--
	9/3/04	58.07	14.41	0.00	43.66	<100	<1	<1	<1	<1	430	--	--	--	--	--	--
	12/8/04	58.07	10.72	0.00	47.35	<50	<0.5	<0.5	<0.5	<0.5	140	--	--	--	--	--	--
	3/25/05	58.07	8.97	0.00	49.10	<50	<0.5	<0.5	<0.5	<0.5	40	--	--	--	--	--	--
MW-5	3/6/02	58.37	4.39	0.00	53.98	<50	<0.5	<0.5	<0.5	<0.5	0.53	<5	<0.5	<0.5	<0.5	--	--
	6/20/02	58.49	12.50	0.00	45.99	<50	<0.5	<0.5	<0.5	<0.5	0.56	<0.5	<5	<0.5	<0.5	<0.5	--
	9/3/02	58.49	14.49	0.00	44.00	<50	<0.5	<0.5	<0.5	<0.5	1.3	<5	<0.5	<0.5	<0.5	<0.5	--
	12/11/02	58.49	15.39	0.00	43.10	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	<0.5	--

Table 1
GROUNDWATER ELEVATIONS AND ANALYTICAL DATA
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California
Blue Rock Project No. NC-004

Sample ID	Sample Date	TOC (feet)	DTW (feet)	SPH (feet)	GWE (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Methanol (µg/L)	Ethanol (µg/L)
MW-5	3/7/03	58.49	8.76	0.00	49.73	<50	<0.5	<0.5	<0.5	<0.5	0.95	<5	<0.5	<0.5	<0.5	--	--
	6/3/03	58.49	8.12	0.00	50.37	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	9/2/03	58.49	14.02	0.00	44.47	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	12/3/03	58.49	14.04	0.00	44.45	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	3/9/04	58.49	6.35	0.00	52.14	<50	<0.5	<0.5	<0.5	<0.5	1.1	<5	<0.5	<0.5	<0.5	--	--
	6/8/04	58.49	11.95	0.00	46.54	<50	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	--	--
	9/3/04	58.49	14.50	0.00	43.99	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	12/8/04	58.49	5.71	0.00	52.78	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	3/25/05	58.49	3.71	0.00	54.78	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
MW-6	3/6/02	58.02	10.28	0.00	47.74	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	6/20/02	58.02	12.62	0.00	45.40	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	9/3/03	58.02	14.33	0.00	43.69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	12/11/02	58.02	15.28	0.00	42.74	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	3/7/03	58.02	10.67	0.00	47.35	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	6/3/03	58.02	10.37	0.00	47.65	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	9/2/03	58.02	13.87	0.00	44.15	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	12/3/03	58.02	14.38	0.00	43.64	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	3/9/04	58.02	9.62	0.00	48.40	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<0.5	--	--
	6/8/04	58.02	12.20	0.00	45.82	<50	<0.5	<0.5	<0.5	<1	<0.5	<5	<0.5	<0.5	<0.5	--	--
	9/3/04	58.02	14.48	0.00	43.54	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	12/8/04	58.02	12.95	0.00	45.07	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	3/25/05	58.02	10.45	0.00	47.57	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
MW-7	3/6/02	58.42	3.68	0.00	54.74	110	<0.5	<0.5	<0.5	<0.5	78	<5	<0.5	<0.5	1.4	--	--
	6/20/02	58.42	4.27	0.00	54.15	200	<0.5	<0.5	<0.5	<0.5	26	<5	<0.5	<0.5	0.7	--	--
	9/3/02	58.42	5.77	0.00	52.65	250	<0.5	<0.5	<0.5	<0.5	2.5	30	15	<0.5	<0.5	0.51	--
	12/11/02	58.42	6.21	0.00	52.21	360	<0.5	<0.5	<0.5	<0.5	4.5	37	9.2	<0.5	<0.5	0.74	--
	3/7/03	58.42	3.80	0.00	54.62	780	<0.5	<0.5	1.1	3.8	21	<5	<0.5	<0.5	<0.5	--	--
	6/3/03	58.42	3.47	0.00	54.95	650	<0.5	<0.5	0.85	2.6	17	5.3	<0.5	<0.5	<0.5	--	--
	9/2/03	58.42	4.70	0.00	53.72	470	<0.5	<0.5	0.59	1.6	13	7.5	<0.5	<0.5	<0.5	--	--
	12/3/03	58.42	4.78	0.00	53.64	490	<0.5	<0.5	0.64	1.5	17	<5	<0.5	<0.5	<0.5	--	--
	3/9/04	58.42	3.45	0.00	54.97	530	<0.5	<0.5	0.9	1.7	16	8.9	<0.5	<0.5	<0.5	--	--
	6/8/04	58.42	3.75	0.00	54.67	540	<0.5	<0.5	0.7	0.8	11	<5	<0.5	<0.5	<0.5	--	--
	9/3/04	58.42	5.33	0.00	53.09	290	<0.5	<0.5	<0.5	0.9	8.1	--	--	--	--	--	--
	12/8/04	58.42	2.75	0.00	55.67	670	0.57	<0.5	1.2	0.85	13	--	--	--	--	--	--
	3/25/05	58.42	3.24	0.00	55.18	1,100	0.56	0.58	2.8	0.92	8.4	--	--	--	--	--	--
MW-8	6/20/02	58.81	4.75	0.00	54.06	<50	<0.5	<0.5	<0.5	<0.5	14	<5	<0.5	<0.5	0.52	--	--
	9/3/02	58.81	14.76	0.00	44.05	<50	<0.5	<0.5	<0.5	0.63	11	<5	<0.5	<0.5	<0.5	--	--
	12/11/02	58.81	16.55	0.00	42.26	92	<0.5	<0.5	<0.5	2.1	21	<5	<0.5	<0.5	1.1	--	--
	3/7/03	58.81	11.89	0.00	46.92	67	<0.5	<0.5	<0.5	<0.5	17	<5	<0.5	<0.5	0.99	--	--

Table 1
GROUNDWATER ELEVATIONS AND ANALYTICAL DATA

Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California
Blue Rock Project No. NC-004

Sample ID	Sample Date	TOC (feet)	DTW (feet)	SPH (feet)	GWE (feet)	TPHg ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethylbenzene ($\mu\text{g/L}$)	Xylenes ($\mu\text{g/L}$)	MTBE ($\mu\text{g/L}$)	TBA ($\mu\text{g/L}$)	DIPE ($\mu\text{g/L}$)	ETBE ($\mu\text{g/L}$)	TAME ($\mu\text{g/L}$)	Methanol ($\mu\text{g/L}$)	Ethanol ($\mu\text{g/L}$)
MW-8	6/3/03	58.81	11.67	0.00	47.14	<50	<0.5	<0.5	<0.5	<0.5	25	<5	<0.5	<0.5	1.5	--	--
	9/2/03	58.81	15.53	0.00	43.28	51	<0.5	<0.5	<0.5	<0.5	56	<5	<0.5	<0.5	3.6	--	--
	12/3/03	58.81	15.31	0.00	43.50	57	<0.5	<0.5	<0.5	<0.5	10	<5	<0.5	<0.5	<0.5	--	--
	3/9/04	58.81	9.82	0.00	48.99	<50	<0.5	<0.5	<0.5	<0.5	4.3	<5	<0.5	<0.5	<0.5	--	--
	6/8/04	58.81	13.28	0.00	45.53	<50	<0.5	<0.5	<0.5	<0.5	37	<5	<0.5	<0.5	0.9	--	--
	9/3/04	58.81	15.68	0.00	43.13	<50	<0.5	<0.5	<0.5	<0.5	21	--	--	--	--	--	--
	12/8/04	58.81	13.47	0.00	45.34	<50	<0.5	<0.5	<0.5	<0.5	41	--	--	--	--	--	--
	3/25/05	58.81	11.26	0.00	47.55	<50	<0.5	<0.5	<0.5	<0.5	16	--	--	--	--	--	--
MW-16	6/20/02	57.54	12.79	0.00	44.75	--	--	--	--	--	--	--	--	--	--	--	--
	9/3/02	57.54	14.49	0.00	43.05	--	--	--	--	--	--	--	--	--	--	--	--
	12/11/02	57.54	15.41	0.00	42.13	--	--	--	--	--	--	--	--	--	--	--	--
	3/7/03	57.54	10.90	0.00	46.64	--	--	--	--	--	--	--	--	--	--	--	--
	6/3/03	57.54	10.76	0.00	46.78	--	--	--	--	--	--	--	--	--	--	--	--
	9/2/03	57.54	14.24	0.00	43.30	--	--	--	--	--	--	--	--	--	--	--	--
	12/3/03	57.54	14.71	0.00	42.83	--	--	--	--	--	--	--	--	--	--	--	--
	3/9/04	57.54	10.32	0.00	47.22	--	--	--	--	--	--	--	--	--	--	--	--
	6/8/04	57.54	12.33	0.00	45.21	--	--	--	--	--	--	--	--	--	--	--	--
	9/3/04	57.54	14.76	0.00	42.78	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/04	57.54	13.27	0.00	44.27	--	--	--	--	--	--	--	--	--	--	--	--
	3/25/05	57.54	10.91	0.00	46.63	--	--	--	--	--	--	--	--	--	--	--	--
		MCL	--	1.0	150	300	1,750	13									
		Taste and odor threshold	5	---	42	29	17	5									
		NCRWQCB Cleanup Goals	50	0.5	42	29	17	5									

Notes :

TOC: Top of well casing referenced to arbitrary site benchmark until 3/02, MSL thereafter

DTW: Depth to water as referenced to top of casing

SPH: Separate phase hydrocarbon on top of groundwater

GWE: Groundwater elevation as referenced to benchmark

$\mu\text{g/L}$ = micrograms per liter = ppb = parts per billion

TPHg: Total petroleum hydrocarbons as gasoline by Method 5030/8015M or 5030/8260B

MTBE: Methyl tertiary butyl ether by Method 8020 or 8260B

MW-16 (LOP #12093) was used for the purpose of obtaining additional groundwater gradient and direction data.

TBA: Tertiary butyl alcohol by Method 8260B

DIPE: Di isopropyl ether by Method 8260B

ETBE: Ethyl tertiary butyl ether by Method 8260B

TAME: Tertiary amyl methyl ether by method 8260B

Methanol: by EPA Method 8260B

Ethanol: by EPA Method 8260B

MCL : Maximum contaminant level

NCRWQCB : North Coast Region Water Quality Control Board

TABLE 2
INTRINSIC BIOREMEDIATION DATA
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California
Blue Rock Project # NC-004

Well ID	Date	Total										Ortho	Ferrous	Dissolved			Heterotrophic	Aerobic	
		TPHg (µg/L)	MTBE (µg/L)	DO* (mg/L)	Eh* (mV)	pH*	Alkalinity (mg/L)	Nitrate (mg/L)	Ammonia (mg/L)	Sulfate (mg/L)	Sulfide (mg/L)			Iron (mg/L)	Manganese (mg/L)	TOC (mg/L)	BOD (mg/L)	COD (mg/L)	Plate Count (CFU/mL)
MW-1	6/20/02	3,400	1,100	0.41	--	6.4	310	0.56	7.6	1.6	--	<0.5	7.4	--	52	5.4	97	7,000	1,000
	12/11/02	4,200	870	2.91	80	5.8	370	0.87	7.9	0.87	<1	<0.5	8.1	6,800	39	12	120	20,000	50
	9/3/04	810	400	1.87	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/04	3,700	270	1.80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/25/05	7,400	240	0.65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	6/20/02	<50	2.3	0.47	0.47	6.5	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/11/02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/3/04	<50	<0.5	2.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/04	<50	<0.5	2.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/25/05	<50	<0.5	5.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	6/20/02	1,900	2,900	0.42	--	6.5	340	0.54	10	1.2	--	<0.5	8.2	--	44	4.2	110	20,000	3,000
	12/11/02	<1,000	3,600	3.12	50	4.4	350	0.94	10	1.4	<1	<0.5	6.9	17,000	32	12	110	20,000	300
MW-4	6/20/02	<50	440	0.62	--	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/11/02	<500	2,300	2.87	165	6.0	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/3/04	<100	430	1.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/04	<50	140	1.95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/25/05	<50	40	0.40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	6/20/02	<50	<0.5	0.57	--	6.4	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/11/02	<50	<0.5	2.71	197	6.1	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/3/04	<50	<0.5	2.36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/04	<50	<0.5	2.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/25/05	<50	<0.5	4.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	6/20/02	<50	<0.5	0.56	--	6.4	87	13	<0.1	6.9	--	<0.5	<0.1	--	4.2	<3	13	200,000	40,000
	12/11/02	<50	<0.5	3.25	146	5.9	85	12	0.16	4.4	<1	<0.5	<0.1	18	3.2	<3	<10	80,000	200
	9/3/04	<50	<0.5	2.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/04	<50	<0.5	2.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/25/05	<50	<0.5	4.27	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	6/20/02	200	26	0.61	--	6.6	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/11/02	360	37	2.78	21	5.9	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/3/04	290	8.1	2.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/04	670	13	1.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/25/05	1,100	8.4	0.47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 2
INTRINSIC BIOREMEDIAL DATA
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California
Blue Rock Project # NC-004

Well ID	Date	Total										Aerobic						
		TPHg (µg/L)	MTBE (µg/L)	DO* (mg/L)	Eh* (mV)	pH*	Alkalinity (mg/L)	Nitrate (mg/L)	Ammonia (mg/L)	Sulfate (mg/L)	Sulfide (mg/L)	Phosphate (mg/L)	Ortho Iron (mg/L)	Ferrous Manganese (mg/L)	Dissolved TOC (mg/L)	BOD (mg/L)	COD (mg/L)	Heterotrophic Plate Count (CFU/mL)
MW-8	6/20/02	<50	14	0.58	--	6.5	--	--	--	--	--	--	--	--	--	--	--	--
	12/11/02	92	21	2.37	79	5.9	--	--	--	--	--	--	--	--	--	--	--	--
	9/3/04	<50	21	1.99	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/04	<50	41	2.20	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/25/05	<50	16	2.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

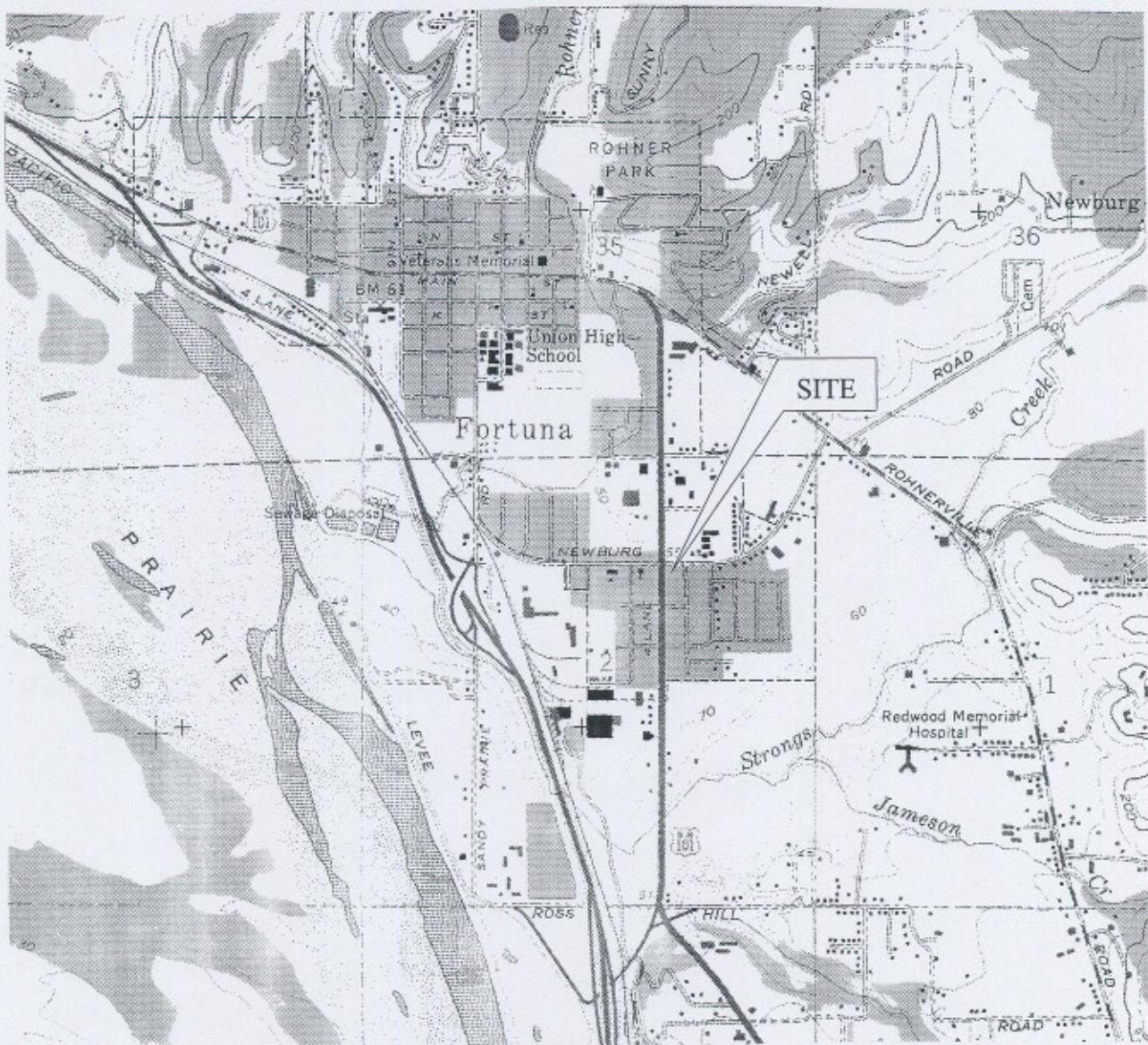
TPHg	Total petroleum hydrocarbons as gasoline by EPA Method 5030/8260B	Sulfate	by EPA Method 375.4
MTBE	Methyl tertiary butyl ether by EPA Method 8260B	Sulfide	by EPA Method 376.2
µg/L	micrograms per liter, equivalent to parts per billion - ppb	Phosphate	by EPA Method 365.2
mg/L	milligrams per Liter, equivalent to parts per million - ppm	TOC	Total organic carbon by EPA Method 9060
*	Parameters measured in field and recorded on field sheets	Ferrous Iron	by Standard Method 3500
mV	Millivolts	BOD	Biological oxygen demand by Standard Method 5210B
CFU/mL	Colony forming units per milliliter	COD	Chemical oxygen demand by EPA Method 410.4
DO	Dissolved oxygen measured with downhole meter	Heterotrophic	
Eh	Reduction-oxidation potential measured with downhole meter	Plate Count	Bacteria enumeration assay by Standard Method 9215B modified
pH	pH measured with field meter	Hydrocarbon	
Alkalinity	by EPA Method 310.1	Degraders	Bacteria enumeration assay for diesel and gasoline degraders
Nitrate	by EPA Method 300.0	"--":	Not analyzed, available, or applicable
Ammonia	by EPA Method 350.2	<###	Not detected above the number indicated
Manganese	by EPA Method 200.7		

Table 3
WELL CONSTRUCTION DETAILS

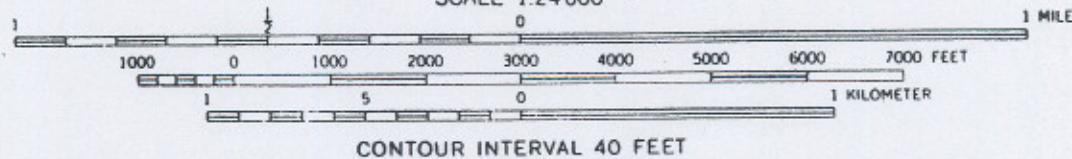
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California
Blue Rock Project No. NC-004

Monitoring Well Identification	Date Installed	Installed by	Casing Diameter (inches)	Total Depth (feet)	Blank Interval (feet)	Screened Interval (feet)	Slot Size (inches)	Filter Pack (feet)	Bentonite Seal (feet)	Cement Grout (feet)
MW-1	1/10/01	Clearwater	2	20	0-5	5-20	0.02	4.5-20	3-4.5	0-3
MW-2	1/11/01	Clearwater	2	15	0-5	5-15	0.02	4.5-15	3-4.5	0-3
MW-3*	1/10/01	Clearwater	2	20	0-5	5-20	0.02	4.5-20	3-4.5	0-3
MW-4	1/11/01	Clearwater	2	20	0-5	5-20	0.02	4.5-20	3-4.5	0-3
MW-5	3/2/02	Clearwater	2	20.5	0-5	5-20	0.02	4-20	3-4	0-3
MW-6	3/2/02	Clearwater	2	20.5	0-5	5-20	0.02	4-20	3-4	0-3
MW-7	3/2/02	Clearwater	2	20.5	0-5	5-20	0.02	4-20	3-4	0-3
MW-8	6/11/02	Clearwater	2	20	0-5	5-20	0.02	4-20	3-4	0-3

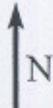
MW-3 was removed during remedial excavation activities in 8/04.



SCALE 1:24 000



MAP SOURCE: USGS Fortuna Quadrangle



Site Location Map

Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California



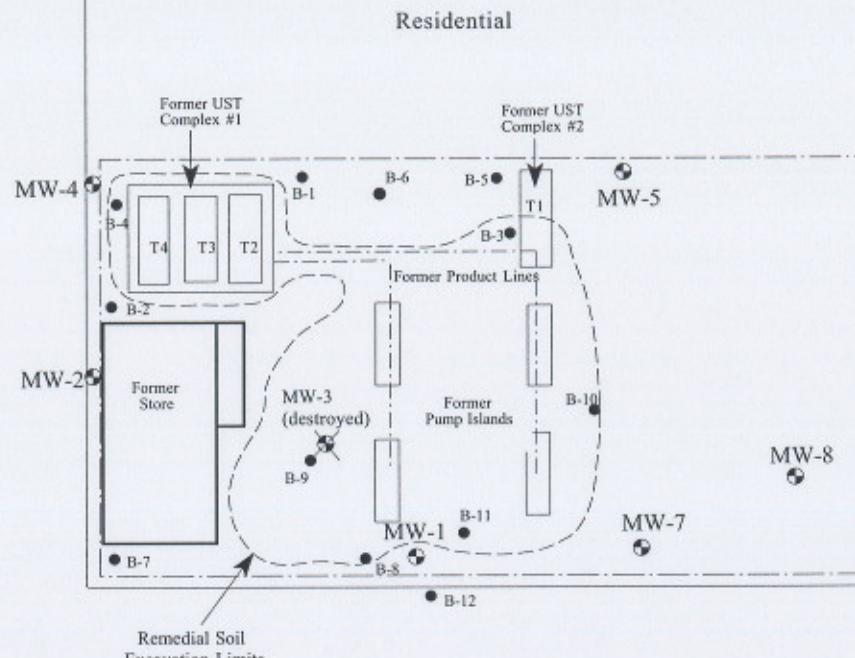
BLUE ROCK
ENVIRONMENTAL, INC.

Project No.
NC-004

Date
4/04

Figure
1

South Fortuna Elementary School
(Parking Lot Area) MW-6



FORTUNA BEACON
GAS STATION

0 40 80

APPROXIMATE SCALE IN FEET

Newburg Road

MW-16

KFC RESTAURANT

EXPLANATION

- B-1 ● Soil Boring
- MW-1 ● Monitoring Well
- Property Line
- UST Underground Storage Tank



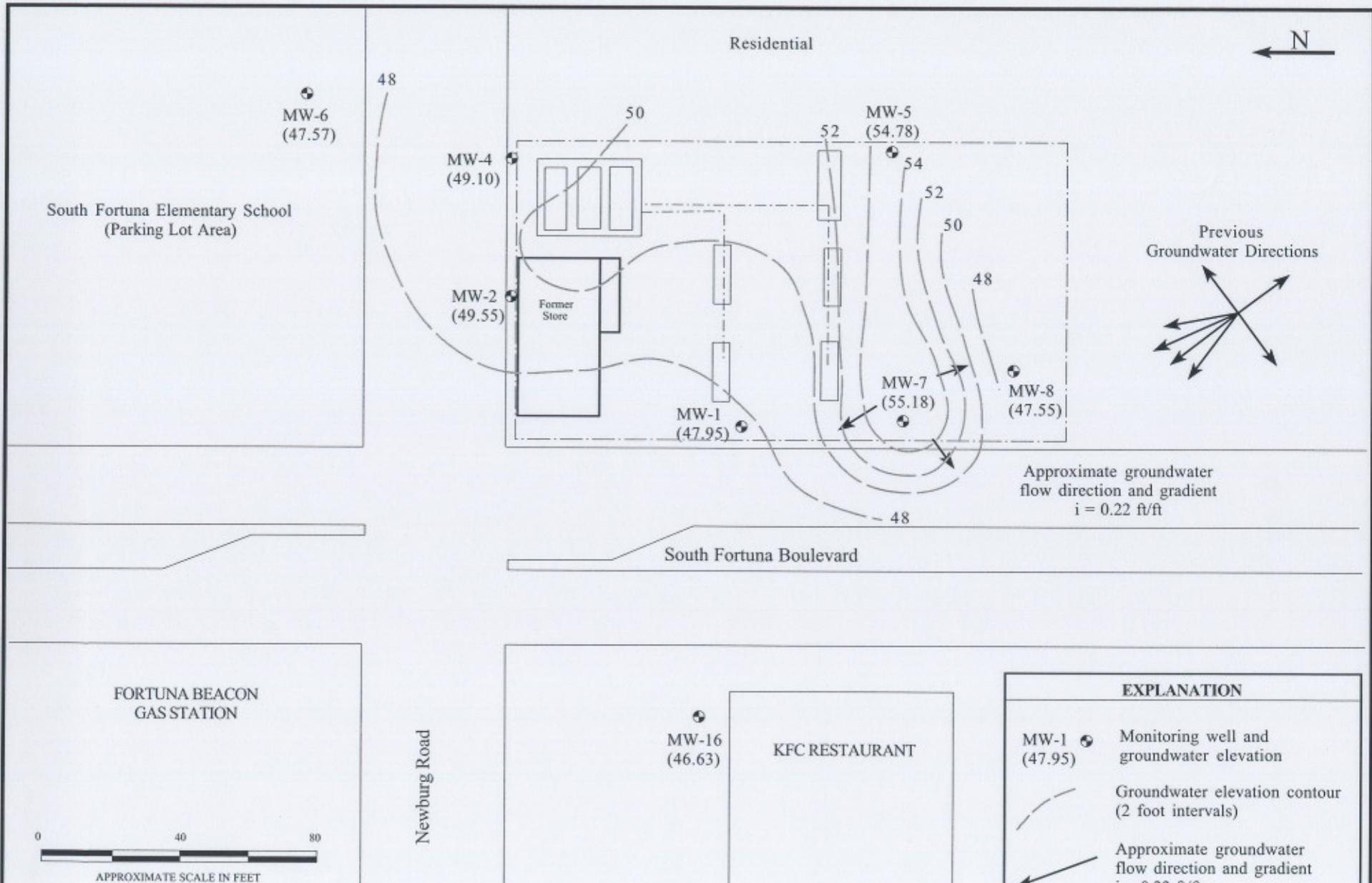
BLUE ROCK
ENVIRONMENTAL, INC.

Site Plan
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California

Project No.
NC-004

Figure Date
4/05

Figure
2



Groundwater Elevations and Gradient Map - 3/25/05

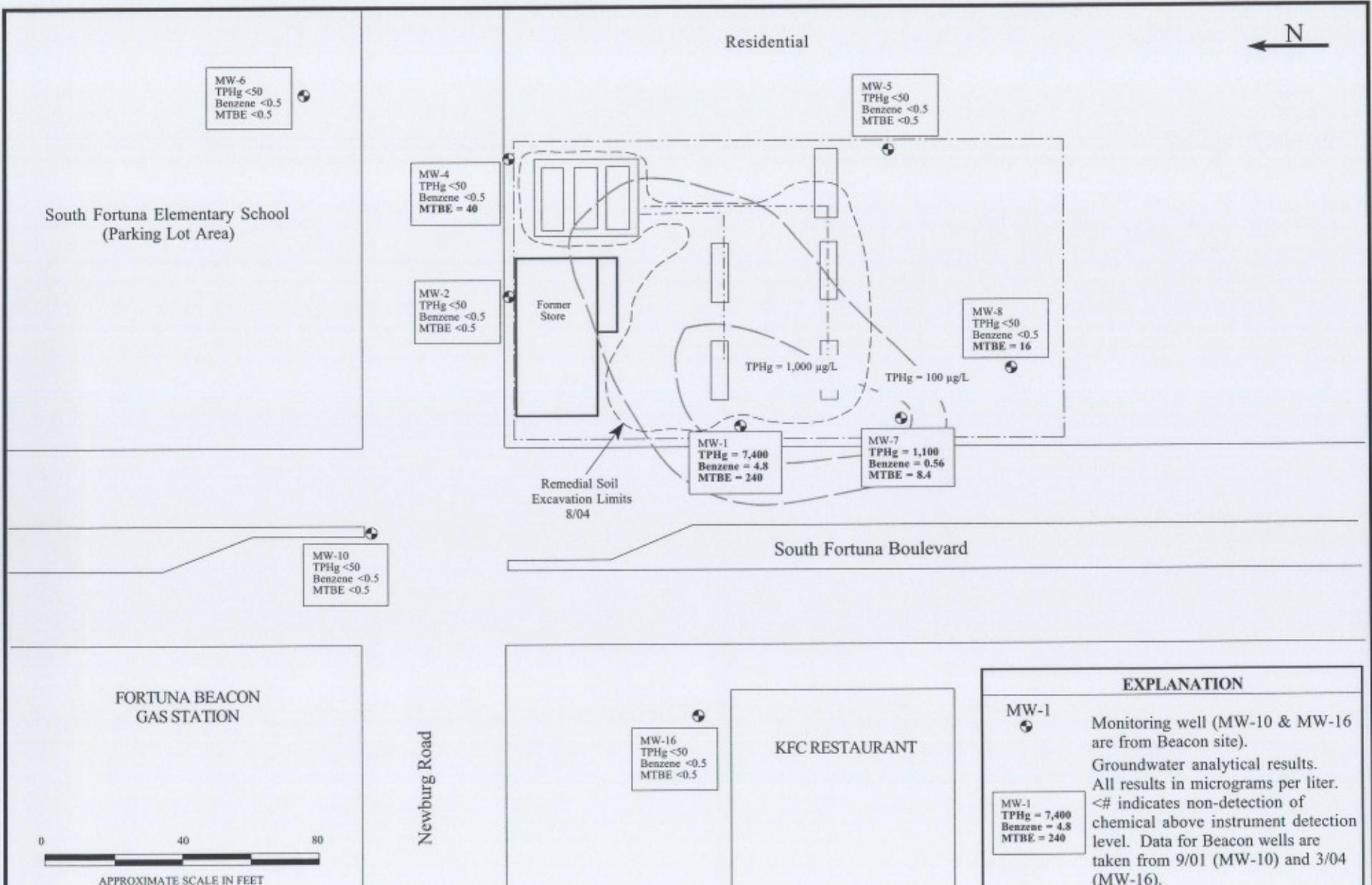
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California

BLUE ROCK
ENVIRONMENTAL, INC.

Project No.
NC-004

Figure Date
4/05

Figure
3

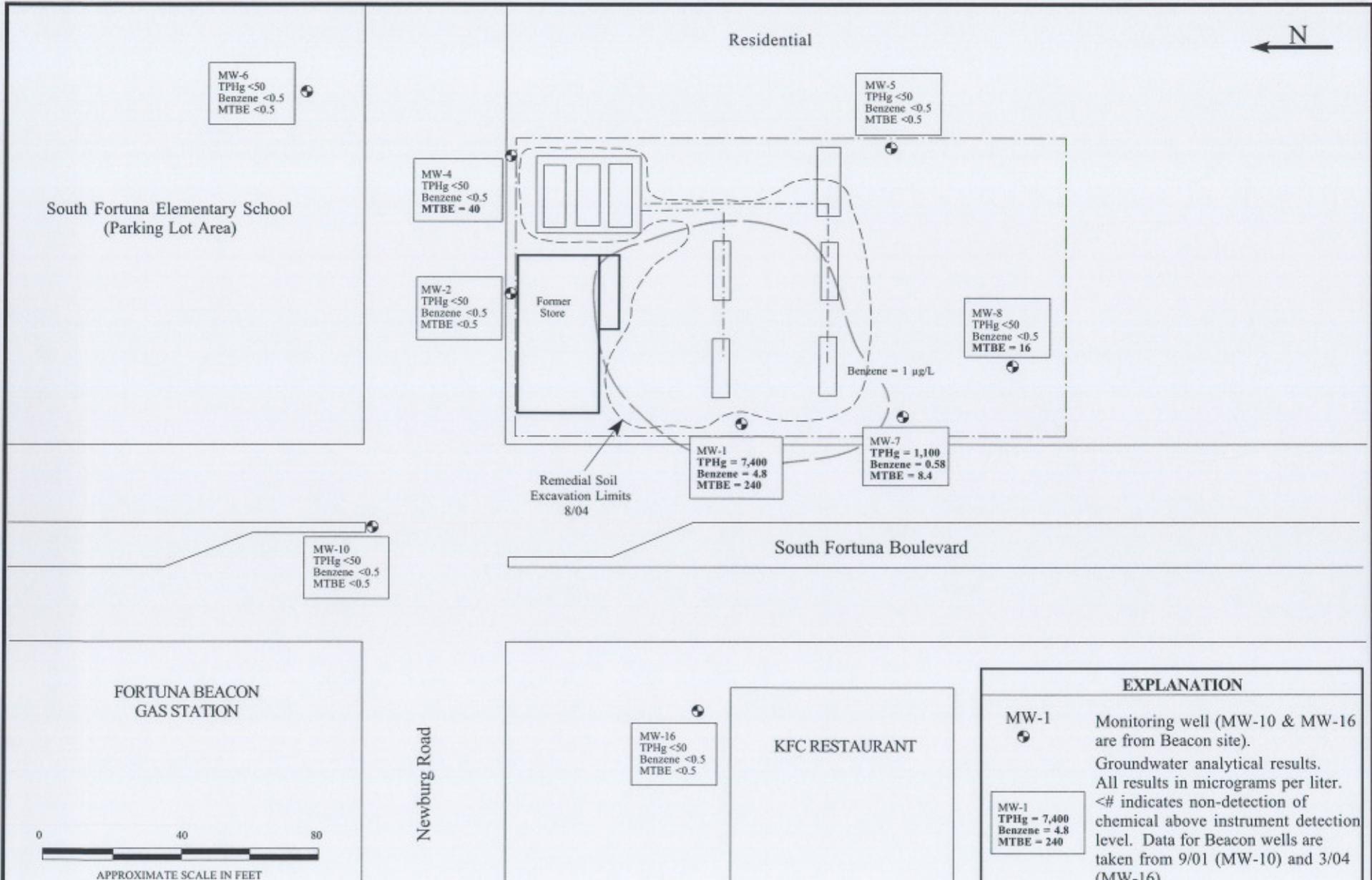


Dissolved-Phase TPHg Distribution Map - 3/25/05

Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California

BLUE ROCK ENVIRONMENTAL, INC.

Project No.	Figure Date	Figure
NC-004	4/05	4a



Dissolved-Phase Benzene Distribution Map - 3/25/05

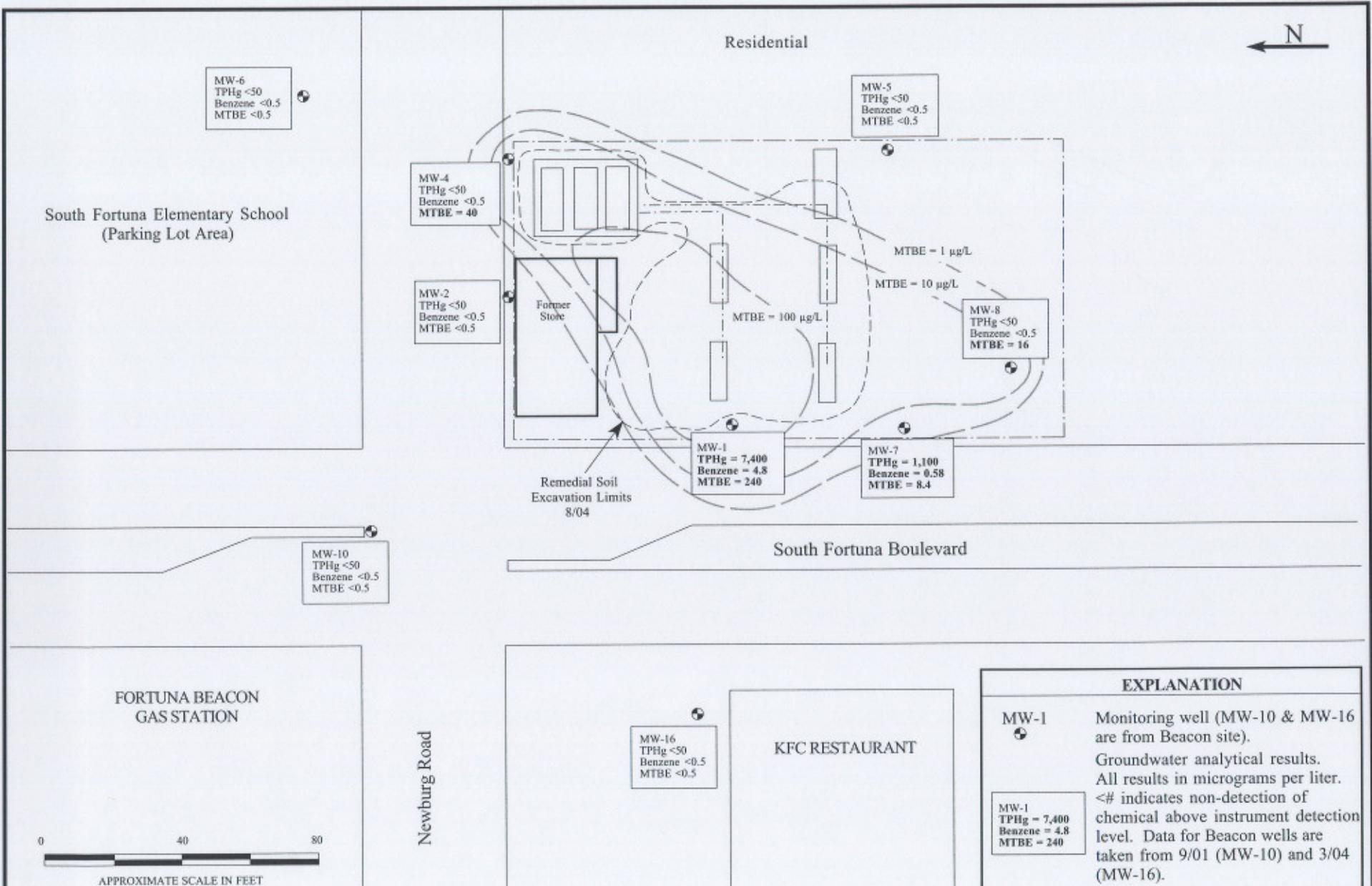
Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California

BLUE ROCK
ENVIRONMENTAL, INC.

Project No.
NC-004

Figure Date
4/05

Figure
4b



Dissolved-Phase MTBE Distribution Map - 3/25/05

Former Cash Oil Fortuna
409 South Fortuna Boulevard
Fortuna, California

 BLUE ROCK
ENVIRONMENTAL, INC.

Project No.
NC-004

Figure Date
4/05

Figure
4c

GAGING DATA/PURGE CALCULATIONS

Job No.: NC-4 Location: 409 S. Fortune Blvd, Fortuna, CA Date: 3-25-05 Tech(s): Scott Robertson

Explanation:

DIA. = Well Diameter

DTB = Depth to Bottom

DTW = Depth to Water

ST = Saturated Thickness (DTB-DTW)

CV = Casing Volume (ST x cf)

PV = Purge Volume (standard 3 x CV,
well development 10 x CV)

SPH = Thickness of Separate Phase Hydrocarbons

Conversion Factors (cf):

2 in. dia. well cf = 0.16 gal./ft.

4 in. dia. well cf = 0.65 gal./ft.

6 in. dia. well cf = 1.44 gal./ft.



 BLUE ROCK
ENVIRONMENTAL, INC.

PURGING DATA

SHEET 1 OF 3

Job No.: NC-04 Location: 409 S. Farum Blvd. Date: 3-25-05 Tech: SR

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
MW-6			---	---	---	1200
Calc. purge volume	1151	1	95	61.6	6.85	Sample for: <input checked="" type="checkbox"/> TPHg <input type="checkbox"/> TPHd 8260
4.00	1154	2	107	60.6	6.86	<input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> MTBE Metals
	1155	3	118	60.1	6.85	Purging Method: PVC bailer / Pump
	1157	4	114	60.2	6.87	Dedicated / Disposable bailer
	COMMENTS: color, turbidity, recharge, sheen					Sampling Method: Sample at:
	brown, moderate, good					
WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	1225
MW-2			---	---	---	Sample for:
Calc. purge volume	1216	1.75	110	59.0	6.85	<input checked="" type="checkbox"/> TPHg <input type="checkbox"/> TPHd 8260
2.95	1218	1.25	108	58.7	6.83	<input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> MTBE Metals
	1220	2.0	108	58.5	6.85	Purging Method: PVC bailer / Pump
	1222	3.0	107	58.6	6.83	Dedicated / Disposable bailer
	COMMENTS: color, turbidity, recharge, sheen					Sampling Method: Sample at:
	brown, low, good					
WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	1250
MW-5			---	---	---	Sample for:
Calc. purge volume	1237	2	158	55.4	6.85	<input checked="" type="checkbox"/> TPHg <input type="checkbox"/> TPHd 8260
7.48	1239	4	152	55.0	6.89	<input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> MTBE Metals
	1241	6	157	55.0	6.85	Purging Method: PVC bailer / Pump
	1242	7.5	150	54.9	6.86	Dedicated / Disposable bailer
	COMMENTS: color, turbidity, recharge, sheen					Sampling Method: Sample at:
	brown, low, good					

PURGING DATA

SHEET

2 OF 3

Job No.: N-04

Location: 409 S. Fortune Blvd Date: 3-25-05 Tech: SR

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
MW-8			---	---	---	1315
Calc. purge volume	1305	.75	239	57.9	6.85	TPHg TPHd 8260
	1307	1.25	246	57.9	6.86	BTEX MTBE Metals
3.36	1309	2.0	249	57.7	6.81	Purging Method:
	1310	3+	247	57.8	6.87	PVC bailer / Pump
	COMMENTS: color, turbidity, recharge, sheen					Sampling Method:
	brown, low, good					Dedicated / Disposable bailer
						Sample at:

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
MW-4			---	---	---	1345
Calc. purge volume	1333	1.25	241	61.6	6.85	TPHg TPHd 8260
	1335	2.5	276	60.4	6.84	BTEX MTBE Metals
5.17	1337	3.75	304	59.5	6.84	Purging Method:
	1339	5+	307	59.6	6.84	PVC bailer / Pump
	COMMENTS: color, turbidity, recharge, sheen					Sampling Method:
	clear, brown, low, good					Dedicated / Disposable bailer
						Sample at:

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
MW-17			---	---	---	1420
Calc. purge volume	1406	2	389	62.6	6.85	TPHg TPHd 8260
	1409	4	378	59.7	6.84	BTEX MTBE Metals
7.99	1412	6	375	58.9	6.84	Purging Method:
	1414	8	378	58.5	6.84	PVC bailer / Pump
	COMMENTS: color, turbidity, recharge, sheen					Sampling Method:
	brown, low, good, odor					Dedicated / Disposable bailer
						Sample at:

PURGING DATA

SHEET 3 OF 3

Job No.: NC-04

Location: 409 S.Fortuna Blvd Date: 3-25-05 Tech: SR

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
MW-1		.	---	---	---	Sample for:
Calc. purge volume	1426	1	533	59.5	6.58	TPHg TPHd 8260
4.28	1428	2	555	59.7	6.85	BTEX MTBE Metals
	1431	3	569	59.4	6.83	Purging Method:
	1433	4+	570	59.3	6.82	PVC bailer / Pump
	COMMENTS: color, turbidity, recharge, sheen					Sampling Method:
	brown, low, good, odor					Dedicated / Disposable bailer
						Sample at:

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
			---	---	---	Sample for:
Calc. purge volume						TPHg TPHd 8260
						BTEX MTBE Metals
						Purging Method:
						PVC bailer / Pump
	COMMENTS: color, turbidity, recharge, sheen					Sampling Method:
						Dedicated / Disposable bailer
						Sample at:

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH	
			---	---	---	Sample for:
Calc. purge volume						TPHg TPHd 8260
						BTEX MTBE Metals
						Purging Method:
						PVC bailer / Pump
	COMMENTS: color, turbidity, recharge, sheen					Sampling Method:
						Dedicated / Disposable bailer
						Sample at:



Report Number : 43005

Date : 4/1/2005

Scott Ferriman
Blue Rock Environmental, Inc.
535 3rd Street, Suite 100
Eureka, CA 95501

Subject : 7 Water Samples
Project Name : Former Cash Oil Fortuna
Project Number : NC-4

Dear Mr. Ferriman,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink that reads "Joel Kiff".

Joel Kiff



Report Number : 43005

Date : 4/1/2005

Project Name : Former Cash Oil Fortuna

Project Number : NC-4

Sample : MW-1

Matrix : Water

Lab Number : 43005-01

Sample Date : 3/25/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	4.8	1.0	ug/L	EPA 8260B	3/30/2005
Toluene	1.4	1.0	ug/L	EPA 8260B	3/30/2005
Ethylbenzene	21	1.0	ug/L	EPA 8260B	3/30/2005
Total Xylenes	1.4	1.0	ug/L	EPA 8260B	3/30/2005
Methyl-t-butyl ether (MTBE)	240	1.0	ug/L	EPA 8260B	3/30/2005
TPH as Gasoline	7400	100	ug/L	EPA 8260B	3/30/2005
Toluene - d8 (Surr)	95.8		% Recovery	EPA 8260B	3/30/2005
4-Bromofluorobenzene (Surr)	98.1		% Recovery	EPA 8260B	3/30/2005

Sample : MW-2

Matrix : Water

Lab Number : 43005-02

Sample Date : 3/25/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/29/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/29/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/29/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/29/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/29/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/29/2005
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	3/29/2005
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	3/29/2005

Approved By:

Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800



Report Number : 43005

Date : 4/1/2005

Project Name : Former Cash Oil Fortuna

Project Number : NC-4

Sample : MW-4

Matrix : Water

Lab Number : 43005-03

Sample Date : 3/25/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/30/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/30/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/30/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/30/2005
Methyl-t-butyl ether (MTBE)	40	0.50	ug/L	EPA 8260B	3/30/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/30/2005
Toluene - d8 (Surr)	98.6		% Recovery	EPA 8260B	3/30/2005
4-Bromofluorobenzene (Surr)	95.5		% Recovery	EPA 8260B	3/30/2005

Sample : MW-5

Matrix : Water

Lab Number : 43005-04

Sample Date : 3/25/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/30/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/30/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/30/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/30/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/30/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/30/2005
Toluene - d8 (Surr)	98.9		% Recovery	EPA 8260B	3/30/2005
4-Bromofluorobenzene (Surr)	96.0		% Recovery	EPA 8260B	3/30/2005

Approved By:

Joe Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800



Report Number : 43005

Date : 4/1/2005

Project Name : Former Cash Oil Fortuna

Project Number : NC-4

Sample : MW-6

Matrix : Water

Lab Number : 43005-05

Sample Date : 3/25/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/29/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/29/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/29/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/29/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/29/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/29/2005
Toluene - d8 (Surr)	99.8		% Recovery	EPA 8260B	3/29/2005
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	3/29/2005

Sample : MW-7

Matrix : Water

Lab Number : 43005-06

Sample Date : 3/25/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.56	0.50	ug/L	EPA 8260B	3/30/2005
Toluene	0.58	0.50	ug/L	EPA 8260B	3/30/2005
Ethylbenzene	2.8	0.50	ug/L	EPA 8260B	3/30/2005
Total Xylenes	0.92	0.50	ug/L	EPA 8260B	3/30/2005
Methyl-t-butyl ether (MTBE)	8.4	0.50	ug/L	EPA 8260B	3/30/2005
TPH as Gasoline	1100	50	ug/L	EPA 8260B	3/30/2005
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	3/30/2005
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	3/30/2005

Approved By:

Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800



Report Number : 43005

Date : 4/1/2005

Project Name : Former Cash Oil Fortuna

Project Number : NC-4

Sample : MW-8

Matrix : Water

Lab Number : 43005-07

Sample Date : 3/25/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/30/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/30/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/30/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/30/2005
Methyl-t-butyl ether (MTBE)	16	0.50	ug/L	EPA 8260B	3/30/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/30/2005
Toluene - d8 (Surr)	98.3		% Recovery	EPA 8260B	3/30/2005
4-Bromofluorobenzene (Surr)	96.7		% Recovery	EPA 8260B	3/30/2005

Approved By:

Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Report Number : 43005

Date : 4/1/2005

QC Report : Method Blank Data**Project Name : Former Cash Oil Fortuna****Project Number : NC-4**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/29/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/29/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/29/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/29/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/29/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/29/2005
Toluene - d8 (Surr)	102		%	EPA 8260B	3/29/2005
4-Bromofluorobenzene (Surr)	103		%	EPA 8260B	3/29/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/30/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/30/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/30/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/30/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/30/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/30/2005
Toluene - d8 (Surr)	101		%	EPA 8260B	3/30/2005
4-Bromofluorobenzene (Surr)	106		%	EPA 8260B	3/30/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/29/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/29/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/29/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/29/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/29/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/29/2005
Toluene - d8 (Surr)	98.6		%	EPA 8260B	3/29/2005
4-Bromofluorobenzene (Surr)	104		%	EPA 8260B	3/29/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/29/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/29/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/29/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/29/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/29/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/29/2005
Toluene - d8 (Surr)	98.6		%	EPA 8260B	3/29/2005
4-Bromofluorobenzene (Surr)	96.7		%	EPA 8260B	3/29/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/30/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/30/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/30/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/30/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	3/30/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/30/2005
Toluene - d8 (Surr)	98.1		%	EPA 8260B	3/30/2005
4-Bromofluorobenzene (Surr)	96.4		%	EPA 8260B	3/30/2005

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Approved By: Joel Kiff



Report Number : 43005

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 4/1/2005

Project Name : Former Cash Oil Fortuna

Project Number : NC-4

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	43005-02	<0.50	40.0	40.0	41.5	40.0	ug/L	EPA 8260B	3/29/05	104	100	3.69	70-130	25
Toluene	43005-02	<0.50	40.0	40.0	45.0	43.6	ug/L	EPA 8260B	3/29/05	113	109	3.36	70-130	25
Tert-Butanol	43005-02	<5.0	200	200	212	214	ug/L	EPA 8260B	3/29/05	106	107	0.922	70-130	25
Methyl-t-Butyl Ether	43005-02	<0.50	40.0	40.0	34.4	34.2	ug/L	EPA 8260B	3/29/05	86.0	85.6	0.425	70-130	25
Benzene	43005-06	0.56	40.0	40.0	41.6	40.6	ug/L	EPA 8260B	3/30/05	102	100	2.48	70-130	25
Toluene	43005-06	0.58	40.0	40.0	44.3	43.0	ug/L	EPA 8260B	3/30/05	109	106	2.92	70-130	25
Tert-Butanol	43005-06	<5.0	200	200	218	215	ug/L	EPA 8260B	3/30/05	109	108	1.46	70-130	25
Methyl-t-Butyl Ether	43005-06	8.4	40.0	40.0	43.4	43.8	ug/L	EPA 8260B	3/30/05	87.6	88.5	0.976	70-130	25
Benzene	43005-05	<0.50	40.0	40.0	44.8	41.7	ug/L	EPA 8260B	3/29/05	112	104	7.12	70-130	25
Toluene	43005-05	<0.50	40.0	40.0	43.1	40.1	ug/L	EPA 8260B	3/29/05	108	100	7.24	70-130	25
Tert-Butanol	43005-05	<5.0	200	200	215	197	ug/L	EPA 8260B	3/29/05	108	98.7	8.61	70-130	25
Methyl-t-Butyl Ether	43005-05	<0.50	40.0	40.0	40.3	37.8	ug/L	EPA 8260B	3/29/05	101	94.6	6.24	70-130	25
Benzene	43003-03	<0.50	40.0	40.0	41.7	41.4	ug/L	EPA 8260B	3/29/05	104	104	0.739	70-130	25
Toluene	43003-03	<0.50	40.0	40.0	41.1	40.4	ug/L	EPA 8260B	3/29/05	103	101	1.82	70-130	25
Tert-Butanol	43003-03	<5.0	200	200	196	199	ug/L	EPA 8260B	3/29/05	98.1	99.7	1.67	70-130	25
Methyl-t-Butyl Ether	43003-03	3.1	40.0	40.0	48.6	48.9	ug/L	EPA 8260B	3/29/05	114	115	0.769	70-130	25
Benzene	43005-03	<0.50	40.0	40.0	42.2	41.1	ug/L	EPA 8260B	3/30/05	106	103	2.56	70-130	25
Toluene	43005-03	<0.50	40.0	40.0	41.8	40.4	ug/L	EPA 8260B	3/30/05	104	101	3.40	70-130	25

Approved By: Joe Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

QC Report : Matrix Spike/ Matrix Spike Duplicate

Report Number : 43005

Date : 4/1/2005

Project Name : **Former Cash Oil Fortuna**Project Number : **NC-4**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Spiked Sample Percent Recov.	Spiked Sample Percent Recov.	Relative Percent Diff.	Relative Percent Limit
					Units					Relative Percent Diff.	Spiked Percent Recov.	Spiked Percent Recov.	Relative Percent Diff.	Relative Percent Limit
Tert-Butanol	43005-03	<5.0	200	200	203	202	ug/L	EPA 8260B	3/30/05	101	101	0.274	70-130	25
Methyl-t-Butyl Ether	43005-03	40	40.0	40.0	86.0	84.6	ug/L	EPA 8260B	3/30/05	115	111	2.97	70-130	25

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Approved By: Joe Kiff



Project Name : Former Cash Oil Fortuna

Project Number : NC-4

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	3/29/05	99.7	70-130
Toluene	40.0	ug/L	EPA 8260B	3/29/05	109	70-130
Tert-Butanol	200	ug/L	EPA 8260B	3/29/05	105	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	3/29/05	88.1	70-130
Benzene	40.0	ug/L	EPA 8260B	3/30/05	99.5	70-130
Toluene	40.0	ug/L	EPA 8260B	3/30/05	109	70-130
Tert-Butanol	200	ug/L	EPA 8260B	3/30/05	104	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	3/30/05	88.3	70-130
Benzene	40.0	ug/L	EPA 8260B	3/29/05	106	70-130
Toluene	40.0	ug/L	EPA 8260B	3/29/05	104	70-130
Tert-Butanol	200	ug/L	EPA 8260B	3/29/05	101	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	3/29/05	102	70-130
Benzene	40.0	ug/L	EPA 8260B	3/29/05	100	70-130
Toluene	40.0	ug/L	EPA 8260B	3/29/05	102	70-130
Tert-Butanol	200	ug/L	EPA 8260B	3/29/05	99.8	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	3/29/05	115	70-130
Benzene	40.0	ug/L	EPA 8260B	3/30/05	102	70-130

KIFF ANALYTICAL, LLC

Approved By:

Joe Kiff

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

QC Report : Laboratory Control Sample (LCS)

Report Number : 43005

Date : 4/1/2005

Project Name : **Former Cash Oil Fortuna**

Project Number : **NC-4**

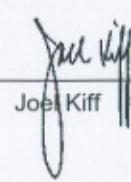
Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Toluene	40.0	ug/L	EPA 8260B	3/30/05	103	70-130
Tert-Butanol	200	ug/L	EPA 8260B	3/30/05	103	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	3/30/05	118	70-130

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Approved By:

Joe Kiff





2795 2nd Street, Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4808

Lab No. 43005

Page 1 of 1

Project Contact (Hardcopy or PDF To):

Scott Ferriman

Company/Address: Blue Rock Env

535 Third street #100 Eureka, CA

Phone No.:

707-441-1924

FAX No.:

707-441-19

Project Number:

NC-4

P.O. No.:

Former Cash Oil Fortuna

Project Address:

409 S. Fortuna Blvd
Fortuna, CA

Sample Designation

MW-1

Sampling

Date Time

40 ml VOA

SLEEVE

Container

HCl HNO₃

ICE

NONE

WATER

SOIL

Preservative

None

Water

Matrix

Soil

Chain-of-Custody Record and Analysis Request

Analysis Request

		TAT
BTEX (8021B)		
BTEX/TPH Gas/MTBE (8021B/N8015)		
TPH as Diesel (M8015)		
TPH as Motor Oil (M8015) <i>5/24/05</i>	X	
TPH Gas/BTEX/MTBE (8260B)		
5 Oxygenates/BTEX (8260B)		
7 Oxygenates/TPH Gas/BTEX (8260B)		
5 Oxygenates (8260B)		
7 Oxygenates (8260B)		
Lead Scav. (1,2 DCA & 1,2 EDB - 8260B)		
EPA 8260B (Full List)		
Volatile Halocarbons (EPA 8260B)		
Lead (7421/239.2) TOTAL (X) W.E.T. (X)		
	12 hr / 24 hr / 48 hr / 72 hr <i>1 week</i>	
		For Lab Use Only

Relinquished by:

Scott Rahl

Date

3/28/05

Time

Received by:

Fed Ex

Remarks:

The samples arrived on wet ice via FedEx @ 1025. the temperature in the ice chest was 5.8°C . the thermometer ID is JTR-1 000 032905 1120

Relinquished by:

Date

Time

Received by:

Relinquished by:

Date

032905

Time

1120

Received by Laboratory:

Sayle Ann Kiff Analytical

Bill to:

Distribution: White - Lab, Pink - Originator

Forms/coc 121001.fl9